

Atlantic Richfield Company

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July 6, 2016

CERTIFIED – RETURN RECEIPT REQUESTED

Mr. Dave Seter
Remedial Project Manager
U.S. Environmental Protection Agency - Region 9
75 Hawthorne Street, SFD-9-1
San Francisco, CA 94105

**Subject: June 2016 Monthly Report, Yerington Mine Site, Lyon County, Nevada:
Administrative Order for Remedial Investigation and Feasibility Study (RI/FS),
CERCLA Docket No. 9-2007-0005; Administrative Order on Consent, CERCLA
Docket No. 09-2009-0010**

Dear Mr. Seter:

Pursuant to the above referenced orders issued by the U.S. Environmental Protection Agency - Region 9 (EPA), Atlantic Richfield Company (ARC) has prepared this June 2016 monthly report for RI/FS and Operations and Maintenance (O&M) activities at the Yerington Mine Site (Site).

June 2016 Activities

Site Security and O&M Activities

- Continued Site O&M, security and bird deterrent activities. The two security cameras indicated no activity of concern.
- Wind dancers, bird deterrent flags, Wetland Wailer s and Bird Gard towers continued to be deployed in accordance with current EPA-approved bird deterrent protocols. To reduce birds from becoming habituated to the presence of wind dancers and flags, these devices were relocated as needed (wind dancers on the Evaporation Ponds were shut down during the drilling program).
- Bird Gard towers 'A', 'B' and 'C' were in operation up through June 20 when they were shut down due to dry conditions within the ponds.
- Continued the EPA-approved bird deterrent schedule with at least two monitoring visits per day at all ponds. Observations were made within half an hour of dawn and dusk.
- PWS Pond water levels: North Cell = 0.0 feet; Middle Cell = 0.0 feet; South Cell = 0.0 feet.
- As of June 30, the Arimetco FMS pond levels were: Phase 1 Pond = 3.88 feet; FMS Evaporation Pond A = 8.62 feet; FMS Evaporation Pond B = 5.68 feet; FMS Evaporation Pond C = 5.84 feet; VLT Pond = 11.47 feet; Slot Pond = 16.85 feet. The freeboard level in FMS Evaporation Pond A on June 30 was approximately 1.53 feet. Fluid transfers in June consisted of approximately 10,975 gallons from the Phase 1 Pond to Pond B and 112,456 gallons from the Slot Pond to Pond B. See attached monitoring data.
- No rainfall occurred during June and the total Site rainfall remained 3.1 inches since January 1, 2016. See attached monitoring data.
- Approximately 27,858 gallons of solution were pumped from the leak detectors in June including 2,431 gallons from the VLT ditches and Sediment Pond, and 25,418 gallons from the Slot HLP perimeter collection ditch. See attached monitoring data.

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June 2016 Activities - Continued

Site Security and O&M Activities - Continued

- FMS pond samples for total dissolved solids (TDS) analyses and electrical conductivity (EC) measurements were obtained on June 21 from various depths and locations around the ponds.
- On June 22-23, repairs (cutting the pipe and welding a butt flange) were made to five leaks in older, thin-walled portions of the VLT pipeline within the pipeline ditch (i.e., the leaks remained in containment). The leaks appear to have developed in response to the spray evaporation testing conducted by SPS.

Site Characterization Activities

- Site-wide monthly groundwater elevation measurements were obtained June 19-21 for recently installed monitor wells and wells outfitted with pressure transducers.
- A Pit Lake water elevation of 4,235.05 feet amsl was recorded on June 19 from the pressure transducer, an increase of 0.08 feet since May 19, 2016. The pit lake elevation has risen 1.09 feet since June 19, 2015.
- No changes to the Domestic Well Monitoring Program in June 2016. The number of domestic wells included in the program has decreased as properties continue to be connected to the Yerington municipal water system and domestic wells are taken out of service. Specific changes to the program are anticipated to be documented in the Second Quarter 2016 Domestic Well Monitoring Report (DWMR).
- No changes to the Bottled Water Program in June 2016. The number of properties requiring bottled water will decrease as properties continue to be connected to the Yerington municipal water system, and domestic wells are taken out of service.
- Continued the compilation of data for inclusion in the 1Q 2016 Groundwater Monitoring Report (GMR) and the 1Q 2016 DWMR.
- Continued the preparation of a technical memorandum describing proposed modifications to the Site-wide groundwater monitoring program.
- Continued development of the OU-3 Human Health Risk Assessment (HHRA) Technical Memorandum (Tech Memo 2), which includes the calculation of exposure point concentrations for oxide tailings, soil, and soil vapors for future workers.
- Continued to develop the OU-3 HHRA Work Plan and OU-3 soil and oxide tailings data quality review for risk assessment, and the calculation of soil vapor screening levels.
- Prepared for and participated in a groundwater technical meeting held on June 29 with EPA and other stakeholders to discuss comments on the revised Background Groundwater Quality Assessment (BGQA), the Bedrock Characterization Technical Memorandum, and the Geochemical DSR as well as the path forward for completion of the Site-Wide Groundwater Operable Unit (OU-1) Remedial Investigation Report. Provided EPA and others with responses to comments on the revised BGQA dated July 2, 2015.
- EPA confirmed on June 2 that the Bedrock Groundwater Assessment Technical Memorandum had been reviewed, and that no revisions to the Technical Memorandum would be required for its inclusion in the OU-1 RI Report.
- Continued to compile information for inclusion in the OU-1 RI Report.
- Continued to compile soil classification and XRF data collected during OU-7 Phase 1 field sampling activities, and continued to compile the analytical data received from the project laboratory (all laboratory data have been received with the exception of the radiochemical analyses and data validation is expected to be completed by late July).
- Drilling activities on the Evaporation Ponds started on June 7. Borings for the vadose zone characterization locations (EP-VZC-2, -3, -6 and -8) were drilled, and the soil logged and collected for transmittal to: 1) Test America for geochemical analyses; 2) Sierra Environmental Monitoring (SEM) for Meteoric Water Mobility Procedure (MWMP), electrical conductivity, moisture content, and soil pH analyses; and 3) Geo-Logic for grain size determinations and hydraulic property testing as described in the OU-4 a Field Sampling and Analysis Plan (FSAP).

June 2016 Activities - Continued

Site Characterization Activities - Continued

- Drilling in the Evaporation Ponds was then initiated on June 21 for soil and groundwater sample collection and geochemical analyses at the following locations (temporary well locations sampled to date are in bold font): **EP-GC-4, EP-GC-5, EP-GC-6, EP-GC-7, EP-GC-8, EP-GC-9, EP-GC-10, EP-GC-11, EP-GC-12, EP-GC-14, EP-GC-15, EP-GC-16, EP-GC-23, EP-GC-24, EP-GC-25** and EP-GC-26.
- Routine database management activities in support of Site investigations and monitoring activities.
- Submitted a Notice of Contractor Change to EPA on June 22, 2016.

Planned July/August 2016 Activities

Site Security and O&M Activities

- Continue routine Site O&M, security and bird deterrent activities.
- Continue FMS pond sampling for TDS analyses and EC measurements.

Site Characterization Activities

- Continue groundwater elevation and pit lake level measurements, and meteorological monitoring.
- Prepare for and perform the 3Q 2016 groundwater monitoring event (August).
- Prepare for the 3Q 2016 domestic well monitoring event, with possible modifications as indicated above.
- Continue the Bottled Water Program, with possible modifications as indicated above.
- Continue the compilation of data for inclusion in the 1Q 2016 GMR and 1Q 2016 DWMR.
- Complete and transmit the technical memorandum describing proposed modifications to the Site-wide groundwater monitoring program. Continue discussions with EPA regarding the proposed reductions to the groundwater and domestic well monitoring programs including analytical parameters, wells to be sampled and the quarterly/annual report contents.
- Prepare for and participate in a technical meeting to be held on August 2 to discuss the screening of remedial action alternatives and other FS-related subjects with EPA and other stakeholders.
- Continue to compile information for inclusion in the OU-1 RI Report, including an analysis of chemical concentration stability in Site-wide groundwater monitor wells.
- Continue to compile OU-7 field and laboratory analytical data into tables and maps for use in a future technical meeting with EPA and other stakeholders.
- Continue and complete drilling and sampling of soils and groundwater in the Evaporation Ponds, and the installation of vadose zone monitoring equipment installation at four locations (EP-VZC-2, -3, -6 and -8). Initiate development of the OU-4a Data Summary Report.
- Continue working on responses to comments from EPA dated March 16, 2015 on the Process Areas (OU-3) Step-Out Characterization DSR, and the development of a Process Areas RI Report.
- Complete and transmit OU-3 HHRA Tech Memo 2 and discuss with EPA the technical topics outlined in Tech Memo 2 for ultimate inclusion in the HHRA Work Plan. Continue to develop the OU-3 HHRA Work Plan.
- Complete and transmit the draft OU-1 human health conceptual site model.

Please contact me at (657) 529-4581 or via e-mail at jack.oman@bp.com if you have any questions or comments about this June 2016 monthly report.

Sincerely,



Jack Oman
Project Manager

Attachment

cc: Harry Ball, EPA – via electronic mail
Dante Rodriguez, EPA – via electronic mail
Andrew Helmlinger, EPA – via electronic mail
Tom Dunkelman, EPA – via electronic mail
Jeff Collins, NDEP – via electronic mail
Jeryl Gardner, NDEP – via electronic mail
Dave Davis, BLM – via electronic mail
Dan Newell, City of Yerington – via electronic mail
Phyllis Hunewill – via electronic mail
Jim Sanford, MVEC – via electronic mail
Tom Grady, Nevada State Assembly – via electronic mail
Chairwoman Thom, YPT – via electronic mail
Ginny Hatch, YPT – via electronic mail
Deborah Dunn, YPT – via electronic mail
Dietrick McGinnis, McGinnis and Associates – via electronic mail
Tom Bowden, Ridolfi, Inc. – via electronic mail
Chairman Sanchez, WRPT – via electronic mail
Cynthia Ocegueda, WRPT – via electronic mail
Ron Halsey, Atlantic Richfield Company – via electronic mail
Nathan Block, Atlantic Richfield Company – via electronic mail
Patricia Gallery, Atlantic Richfield Company – via electronic mail
Brian Johnson, Atlantic Richfield Company – via electronic mail
John Batchelder, EnviroSolve – via electronic mail
Dan Ferriter, Copper Environmental – via electronic mail
Mike Mahon, Copper Environmental – via electronic mail
Randy Miller, Broadbent – via electronic mail
Travis Phelps, Arcadis – via electronic mail
Jim Chatham, Atlantic Richfield Company – via electronic mail
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Tom Patton, Singatse Peak Services, LLP – via electronic mail
Taurus Massey, Singatse Peak Services, LLP – via electronic mail
David Peri, Peri and Sons – via electronic mail
John McMillan, CBI – via electronic mail
Julian Isham, CBI – via electronic mail
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Colin Lee, Tetra Tech – via electronic mail
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